

PEARSON, J.

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF OHIO
EASTERN DIVISION

IN RE: EAST PALESTINE TRAIN DERAILMENT)
) CASE NO. 4:23-CV-00242
)
) JUDGE BENITA Y. PEARSON
)
) **ORDER**
) [Resolving [ECF No. 616](#)]

Pending is Third-Party Defendant OxyVinyls LP’s Motion to Exclude the Opinion of Dr. Geoffrey Coates. [ECF No. 616](#). Third-Party Plaintiff Norfolk Southern Corporation and Norfolk Southern Railway Company (collectively “Norfolk Southern”) responded in opposition. [ECF No. 677](#). OxyVinyls replied. [ECF No. 693](#). The Court has been advised, having reviewed the record, the parties’ briefs, and the applicable law. For reasons set forth below, the Court denies OxyVinyls’ Motion to Exclude in part and grants it in part.

I. Background

“Norfolk Southern Train 32N derailed at 8:54 pm on February 3, 2023, in East Palestine, Ohio. At the time of the derailment, Train 32N was traveling east on Main Track 1 along Norfolk Southern’s Fort Wayne Line and consisted of two lead locomotives, one distributed power unit, and 149 rail cars.” *See* Notice of Stipulation Regarding Uncontested Facts, [ECF No. 585 at PageID #: 17601, ¶ 1](#). “In total, 38 cars derailed.” [ECF No. 585 at PageID #: 17601, ¶ 2](#). Five of these cars contained Vinyl Chloride Monomer (“VCM”), which is considered hazardous and flammable. *See* [ECF No. 585-1 at #17609](#). OxyVinyls was the shipper of all five cars

(4:23CV242)

containing VCM and owned three of them. [ECF No. 119 at PageID #: 1412, ¶ 6; see also ECF No. 740 at PageID #: 52005, ¶ 5.](#)

Norfolk Southern settled with Plaintiffs represented in the Consolidated Class Action Complaint. Order Granting Final Approval of Settlement, [ECF No. 557](#). Norfolk Southern also lodged a Third-Party Complaint seeking derivative damages under theories of negligence and joint and several liability against certain railcar owners: OxyVinyls LP, GATX Corporation, General American Marks Company, and Trinity Industries Leasing Company.¹ See Third-Party Compl, [ECF No. 119](#).

Relevant to the pending motion, Norfolk Southern alleges that OxyVinyls was negligent in connection with its shipment of the five tank cars containing VCM by, in part, failing to provide accurate information on the hazard VCM could present. [ECF No. 119 at PageID #: 1440–43](#). OxyVinyls’ Safety Data Sheet (“SDS”) warned that air, sunlight, excessive heat, oxidizers, catalytic metals such as copper, aluminum, and their alloys, and certain catalytic impurities could result in explosive or violent polymerization. [ECF No. 119 at PageID 1441–24 ¶ 69](#). The tank cars in which OxyVinyls shipped VCM is alleged to have had aluminum components that then caused the VCM to react, releasing flammable vinyl chloride which ignited. [ECF No. 119 at PageID #: 1442, ¶ 167](#). Additionally, Norfolk Southern alleges OxyVinyls’ representatives made conflicting statements on the ability of vinyl chloride to polymerize, offered inconsistent warnings regarding polymerization, and stated that polymerization was not possible under the derailment conditions despite the vinyl chloride

¹ The Court dropped Trinity Industries Leasing Company as a Third-party Defendant with prejudice pursuant to [Fed. R. Civ. P. 21](#) for the reasons stated in the Unopposed Motion of Third-Party Plaintiffs Norfolk Southern Corporation and Norfolk Southern Railway Company and Trinity ([ECF No. 460](#)). See Order ([ECF No. 464](#)).

(4:23CV242)

having been exposed to extreme conditions. [ECF No. 119 at PageID #: 1442, ¶ 168](#). Norfolk Southern alleges that “[t]he vent and burn and release of hazardous vinyl chloride was the direct result of the improper shipping containers and Oxy Vinyls’ failure to follow federal regulations and its own SDS.” [ECF No. 119 at PageID #: 1442, ¶ 172](#).

Norfolk Southern retained Dr. Geoffrey Coates, an expert on polymerization. OxyVinyls seeks to exclude certain of Dr. Coates’ opinions.

II. Legal Standard

The Federal Rules of Evidence, and specifically [Rule 702](#), “assign to the trial judge the task of ensuring that an expert’s testimony both rests on a reliable foundation and is relevant to the task at hand.” [*Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 597 \(1993\)](#). [Rule 702](#) governs the admissibility of expert testimony and codifies the Supreme Court’s holdings in [*Daubert*](#) and [*Kumho Tire Co., Ltd. v. Carmichael*, 526 U.S. 137 \(1999\)](#). Expert testimony is admissible only if (1) the testimony is based on sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the expert has reliably applied the principles and methods to the facts of the case. [FED. R. EVID. 702](#). In [*United States v. Lang*, 717 Fed.Appx. 523 \(6th Cir. 2017\)](#), the Sixth Circuit held that an expert opinion is reliable when it rests on a “*sufficient*” factual basis and is not “plainly contradict[ed]” by the record. [*Id.*](#) at 536 (emphasis in original). The proponent of the expert testimony has the burden of establishing by a preponderance of the evidence that the proposed testimony satisfies those standards. See [FED. R. EVID. 702 advisory committee’s note \(2000\)](#); [*Daubert*, 509 U.S. at 592 n.10](#). Expert testimony is not admissible “is the exception rather than the rule.” [*In re Scrap Metal Antitrust Litig.*, 527 F.3d 517, 530 \(6th Cir. 2008\)](#) (quoting [FED. R. EVID. 702 advisory committee’s note \(2000\)](#)).

(4:23CV242)

Furthermore, a *Daubert* analysis includes consideration of [Fed. R. Evid. 403](#). *Id.*, at 595.

Therefore, courts in the Sixth Circuit employ a four-prong test to determine the admissibility of expert opinions: “(1) that the witness, a qualified expert, (2) was testifying to a proper subject, (3) which conformed to a generally accepted explanatory theory, and (4) the probative value of the testimony outweighed its prejudicial effect.” [United States v. Smithers](#), 212 F.3d 306, 312 (6th Cir. 2000) (citing [United States v. Green](#), 548 F.2d 1261 (6th Cir.1977)).

III. Analysis

A. Dr. Coates is qualified to give his expert opinion on polymerization.

1. *Expertise on polymerization*

Dr. Coates’ expertise on the science of polymerization is not in question. OxyVinyls speaks extensively about his experience in polymer science and remarks that his “40-plus-page Curriculum Vitae mentions ‘polymer’ or a variant thereof nearly 400 times.” [ECF No. 616 at PageID #: 27062–63](#) (acknowledging that “Dr. Coates Is an Expert in Polymer Science.”); see also Dr. Coates’ CV, [ECF No. 616-1 at PageID #: 27200–43](#).

2. *His expertise qualifies him to opine on hazard communications, SDSs, and warnings.*

OxyVinyls asserts that Dr. Coates is not qualified to “offer his chief opinion—that OxyVinyls’ SDS for VCM contained ‘Scientifically Inaccurate Hazard Warnings’ about the polymerization of VCM due to excessive heat or aluminum” nor the various secondary opinions he offers on OxyVinyls’ SDS. [ECF No. 616 at PageID #: 27065–66](#). OxyVinyls also asserts that Dr. Coates’ “lack of familiarity and experience with OSHA Haz Comm” further contradicts his “purported expertise on the adequacy of SDSs.” [ECF No. 616 at PageID #: 27068](#). OxyVinyls also points to Dr. Coates’ own admission that he is not an expert in warnings, emergency response, or risk assessment. [ECF No. 616 at PageID #: 27069–70](#).

(4:23CV242)

Norfolk Southern responds that Dr. Coates is an expert in polymerization chemistry and thus a “natural choice to evaluate the scientific accuracy of a statement on polymerization of VCM.” [ECF No. 677 at PageID #: 47135–36](#). Norfolk Southern argues that OxyVinyls’ expectation that Dr. Coates also have specialized knowledge on the regulatory scheme is incorrect. [ECF No. 677 at PageID #: 47136](#). Norfolk Southern further argues that Dr. Coates’ background as a laboratory director means he has extensive experience in reviewing and using SDSs, and applicable experience in using SDSs to understand the dangers posed by the chemical and how to mitigate harm in a laboratory setting, which transfers to rail transportation of the same hazardous substance. [ECF No. 677 at PageID #: 47138, 47139](#).

The Court finds that Dr. Coates’ expertise in polymerization and his scientific background qualifies him to opine on the scientific accuracy of the hazard communications, SDSs, and warnings. His “background and general experience” in polymer science is a sufficient foundation for him to opine on whether the hazard communications, SDSs, and warnings accurately reflected the risks presented VCM, regardless of his expertise in the “very specialized” regulatory scheme. See [Surles ex rel. Johnson v. Greyhound Lines, Inc., 474 F.3d 288, 293 \(6th Cir. 2007\)](#). Furthermore, because Dr. Coates’ opinion is based on “established fact[s]” in the record, they satisfy *Daubert*’s reliability standard. See [McLean v. 988011 Ontario, Ltd., 224 F.3d 797, 801 \(6th Cir. 2000\)](#). Much like the situation in *Surles*, Dr. Coates’ background in polymerization leaves him “well-positioned” to assist the trier of fact on SDSs, hazard communications, and warnings about the chemical and its reactivity and hazards. See [Surles, 474 F.3d at 294](#). OxyVinyls concerns should be reflected through vigorous cross-examination, and presentation of contrary evidence, not by depriving the trier of fact of relevant, admissible, and helpful testimony.

(4:23CV242)

B. Dr. Coates opines with a reasonable degree of certainty.

OxyVinyls also argues that Dr. Coates has not stated an opinion about polymerization with the requisite level of certainty because he is unwilling to opine “to a reasonable degree of scientific certainty whether polymerization was occurring in the five VCM rail tank cars.” [ECF No. 616 at PageID #: 27072](#). Rather, because Dr. Coates’ opines that “it would be ‘very reasonable’ that some polymerization ‘could have been occurring’ if oxygen or polyperoxides or another initiator were present,” OxyVinyls argues it does not meet the threshold of certainty necessary to be admitted. [ECF No. 616 at PageID #: 27072](#) (citing Coates’ deposition). OxyVinyls considers it “purely speculative.” [ECF No. 616 at PageID #: 27072](#); [ECF No. 693 at PageID #: 51134](#) (“Dr. Coates’ lack of certainty with respect to whether polymerization was *actually* happening undermines his certainty as to what was *hypothetically* happening.”). The Court disagrees.

Applying Ohio’s standard² of “reasonable degree of scientific certainty,” the Court finds Dr. Coates’ opinion meets a sufficient level of certainty. [Stinson, 633 N.E.2d at 537](#); [Freudeman, 702 F.3d at 324](#). Dr. Coates opines that it was “highly likely” that some polymerization occurred under specific hypothetical conditions. [ECF No. 677 at PageID #:](#)

² In a diversity action, federal law applies for procedural issues while state law governs substantive issues. *See generally Erie R.R. Co. v. Tompkins, 304 U.S. 64 (1938)*. While rules of evidence are procedural, some state evidentiary rules have substantive aspects, such as competency of the witness, creating a potential *Erie* conflict. *See Legg v. Chopra, 286 F.3d 286, 289–90 (6th Cir. 2002)*. In Ohio, the admissibility of the expert testimony is “contingent upon the expression of an opinion by the expert with respect to the causative event in terms of probability” with probable meaning a “greater than fifty percent likelihood that it produced the occurrence at issue.” *See Stinson v. England, 633 N.E.2d 532, 537 (Ohio 1994)*. *See also Freudeman v. Landing of Canton, 702 F.3d 318, 324 (6th Cir. 2012)* (citing *Stinson* to explain that expert testimony was limited to rebutting the testimony of the other expert because they did not state they had an opinion “to a reasonable degree of medical probability”).

(4:23CV242)

[47143](#) (citing Dr. Coates' deposition in which he states that "if there was oxygen and that oxygen made a polyperoxide, and then that substance was heated in the presence of vinyl chloride monomer, I think it was highly likely that some polymer formed").

The motion to exclude this opinion is denied. OxyVinyls may vigorously cross-examine Dr. Coates at trial.

C. Relevance is not in question.

The relevancy of Dr. Coates testimony is not disputed. [ECF No. 693 at PageID #: 51130](#) ("The Relevance of Dr. Coates' Opinions is not at Issue."). Thus, the Court will not further address the relevance of Dr. Coates' opinions.

D. Dr. Coates shall not opine on witness credibility or otherwise infringe on the role of the jury.

It is not the role of an expert witness to weigh in on another witnesses' credibility. See [United States v. Freeman, 730 F.3d 590, 597 \(6th Cir. 2013\)](#) (finding a witness' opinions which address matters which are within the jurors' competence to understand and decide is not helpful and therefore inadmissible). As the Court will instruct, it is solely the role of the jury to make credibility determinations. See [Jahn v. Equine Servs., 233 F.3d 382, 391 \(6th Cir. 2000\)](#) ("But comparing two pieces of evidence and determining which is more credible should be left for the finder of fact."). Opinions of the sort made by Dr. Coates at [ECF No. 616-1 at PageID #: 27171, ¶ 151](#): "Mr. Brenon's lack of expertise undermines the credibility of his statements . . ." are excluded. His commentary on the weight of other witnesses' testimony is excluded where found. Before presenting testimony of Dr. Coates' that may transgress this ruling, Norfolk Southern or any other proponent shall seek approval from the Court.

(4:23CV242)

IV. Conclusion

For the reasons above, OxyVinyls' Motion to Exclude ([ECF No. 616](#)) is denied in part and granted in part. The Court denies the motion to exclude Dr. Coates' opinions regarding his expertise on polymerization and scientific accuracy of the warnings and safety data sheets. His opinions on witness credibility are excluded.

IT IS SO ORDERED.

January 27, 2025

Date

/s/ Benita Y. Pearson

Benita Y. Pearson
United States District Judge